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MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

ACADEMIC FREEDOM¹

My subject is academic freedom, a difficult subject, not as yet very well understood in this country, but likely to be of increasing interest and importance throughout the coming century. I have divided my essay into three parts: the first dealing with academic freedom for teachers; the second with academic freedom for students; and the third with university administration as a type of free government in general.

ACADEMIC FREEDOM FOR TEACHERS

In a democracy, and in the political and social organizations to which democracy takes kindly, there are some new difficulties in regard to academic freedom for teachers. The principal new difficulty is the pressure in a democracy of a concentrated multitudinous public opinion. The great majority of the people in a given community may hold passionately to some dogma in religion, some economic doctrine, or some political or social opinion or practise, and may resent strongly the expression by a public teacher of religious, economic, political, or social views unlike those held by the majority. In parts of our country at this moment liberty of thought and speech on certain topics is, to say the least, imperfect for men who do not coincide with the prevailing opinions and sentiments of the community in which they dwell. Even in colleges and universities in those parts a teacher holding unpopular opinions could,

¹ Address before the Cornell Phi Beta Kappa.

until very recently, hardly escape the alternative of silence or banishment. The teaching of history in schools and colleges is watched with great suspicion by different parties in church and state, lest some unwelcome lessons of present application be drawn from the history of the past. Professors of economics are not even supposed to be free in some American communities which have held for generations with great unanimity the doctrine of protection. The endowed institutions are by no means exempt from this strong pressure of public opinion; for they are sensitive to threats that the stream of gifts on which they depend will be cut off. This multitudinous tyrannical opinion is even more formidable to one who offends it than the despotic will of a single tyrant or small group of tyrants. It affects the imagination more, because it seems omnipresent, merciless, and irresponsible; and therefore resistance to it requires a rare kind of moral courage. For this difficulty there is no remedy except the liberalizing of the common people, or at least of the educated class. To be sure, there is another mode of preventing free teaching on dangerous subjects, which is quite as effective as persecution and much quieter, namely, the omission of all teaching on those subjects, and the elimination of reading matter bearing on them. Thus the supreme subject of theology has been banished from the state universities, and from many of the endowed universities; and in some parts of the country the suppression of Bible-reading and prayer at the opening exercises of the schools, in deference to Roman Catholic objections, has resulted in the children's getting no direct ethical instruction whatsoever. A comical illustration of this control by omission is the recent suggestion that Shakespeare's "Merchant of Venice" ought not to be read in any school where there are Jewish chil-

dren, because it contains an unamiable and inaccurate representation of the character of a Jewish money lender.

A long tenure of office for teachers is wellnigh indispensable, if a just academic freedom is to be secured for them. In the absence of laws providing for it, this long tenure, after suitable periods of probation, is only to be secured in this country through the voluntary, habitual action of school committees and boards of trustees. In this respect, great improvements have been made all over the country through the reforms in the structure or composition of the committees which govern the free schools and of the boards of trustees for institutions of higher education; but much still remains to be done. So long as school committees insist on annual elections of all teachers, and boards of trustees of colleges and universities claim the right to dismiss at pleasure all the officers of the institutions in their charge, there will be no security for the teachers' proper freedom. We have, however, learned what the proper tenure for a teacher is. Teachers in every grade of public instruction from the lowest to the highest, when once their capacity and character have been demonstrated, should hold their offices without express limitation of time, and should be subject to removal only for inadequate performance of duty or for misconduct publicly proved. To procure this tenure for teachers, wherever it does not now obtain, should be the special care of all persons who believe that education is the prime interest of the commonwealth, and that teachers should enjoy perfect liberty within the limits of courtesy and of a "decent respect for the opinions of mankind."

In the institutions of higher education the board of trustees is the body on whose discretion, good feeling, and experience the securing of academic freedom now depends.

There are boards which leave nothing to be desired in these respects; but there are also numerous boards that have everything to learn with regard to academic freedom. These barbarous boards exercise an arbitrary power of dismissal. They exclude from the teachings of the university unpopular or dangerous subjects. In some states they even treat professors' positions as common political spoils; and all too frequently, both in state and endowed institutions, they fail to treat the members of the teaching staff with that high consideration to which their functions entitle them. In the newer parts of our country, it has of course been impossible to find at short notice men really prepared to discharge the difficult duties of educational trusteeship; and it will take generations yet to bring these communities in this respect up to the level of the older states and cities which have had for generations abundant excellent material for such boards of trustees.

In the institutions of higher education there is usually found an organized body of the permanent teachers called a faculty. This body exercises customary powers delegated to it by the board of trustees; and its determinations are ordinarily made by a majority vote after more or less discussion. It deals with questions of general policy affecting both teachers and students, and its votes may sometimes limit the freedom of its own members. Such restrictions, however, as proceed from a faculty are not likely to be really oppressive on individuals; for every voter in a faculty is likely to remember that he himself may hereafter be unpleasantly affected by the same kind of majority vote which he is thinking of taking part in against a resisting colleague.

As a rule, the faculty of a college, professional school, or university is the real source of educational policy and progress,—

so much so, that the vitality of any institution may best be measured by the activity and *esprit de corps* of its faculty. Is the faculty alert, progressive, and public-spirited, the institution will be active and increasingly serviceable; is the faculty sluggish, uninterested, and without cohesion, the institution will probably be dull or even retrograde. If a faculty chooses, it can really limit academic freedom; but it is not likely to do so, because its members will not deny to others the freedom they desire for themselves, unless, indeed, on rare occasions, and for short periods. A faculty is much more likely to limit unduly the academic freedom of students than of teachers; and yet, even in this field, it is harder and harder for a lively and enterprising faculty, representing any adequate variety of university subjects, to restrict the just freedom of students.

Interference with the academic freedom of an individual professor is in these days more likely to come from his colleagues in the same department than from the faculty as a whole. Of course in those institutions which maintain only a single teacher for each subject, there is no competition among teachers of the same subject, and no departmental organization which may become formidable to the individual teacher; but many of our colleges and universities have now got beyond that elementary stage, and have considerable groups of teachers working on one subject, as, for instance, the classics, the modern languages, the mathematics, history, government, economics, philosophy, the physical sciences and the biological sciences. These groups of teachers, whatever called—divisions, departments, or schools—have lately acquired in some American universities very real powers, and among these powers is partial control over the teaching of the individual teachers within each group. The senior

professor of the group sometimes has a formidable amount of restrictive power. This danger to liberty is diminished in some institutions by disregarding seniority in selecting the chairmen of departments or divisions, and making frequent changes of chairmen in those departments which have many members. The points at which danger to freedom exists are: first, the assignment of subjects to the younger members of the department; secondly, the direct access of advanced students to all members of the department; and thirdly, the exchange of subjects year by year among the various members, old and young. At any one of these points it is easy for a department to become despotic, particularly if there be one dominant personage in it. The exercise of power by a division, department, or school should therefore be carefully watched by the president, the dean of the faculty, or some committee of the faculty; so that the just liberty of all members of the department may not be invaded.

The prodigious stream of benefactions to institutions of education in the United States, which has now been flowing in increasing volume ever since the Civil War, has brought upon the endowed institutions a new risk in regard to academic freedom. So far as state institutions are also in a measure endowed, as is the case with the University of California, the same new risk is incurred by them. The risk is all the greater because the living benefactor plays in these days a part even more important than that of the dead benefactor. Ought the opinions and wishes of a living benefactor to influence the teaching in the institution which he endows? In general, the answer must be in the negative; because teaching which is not believed to be free is well-nigh worthless. It inevitably loses its intended effect on those who listen to it.

It has no effect even on those who agree with, or are pleased with, its general tenor. Nevertheless, benefactors have certain rights in this respect. They may fairly claim that their benefactions entitle their opinions and sentiments to be treated with consideration and respect, and not with contumely or scorn, in the institutions they have endowed, or by the professors whom their gifts support. If their benefactions are for general uses and not for the support of any specific courses of instruction, they may fairly claim that subjects likely to be taught in a manner repulsive to them should be omitted altogether, unless some serious public obligation requires the institution to include them. The mere lapse of time will probably free an endowed institution from embarrassments of this nature, not chiefly because the living benefactor will die, but because the burning questions change so frequently with the rapid progress of society. Thus, the choice between Calvinism and Channingism was a burning question seventy years ago, but now few people take keen interest in it. In like manner, a few years ago academic freedom was seriously impaired during the discussion about the relations of gold and silver to a stable currency; but now all heat has gone out of that controversy. For two generations protection and free trade have been hot subjects; but in a few years they will be stone cold, because the practise mis-called protection will have become inapplicable to American industrial conditions, and, indeed, manifestly injurious to both manufactures and commerce. Any slight interference with academic freedom which time will certainly cure may be endured with equanimity for a season, in consideration of great counter-balancing advantages.

There is another university authority who can, if he choose, put limits to academic freedom for a time—the president.

The president of moderately long service has probably been concerned with the selection and actual appointment of a large majority of the teaching staff in his institution. He has also probably had to do with the step-by-step promotion of nearly everybody connected with the institution. For these reasons his wishes may have undue weight with the individual professor who desires to make changes in his subjects or methods of instruction. Some presidents are, therefore, careful how they bring any restrictive pressure to bear on teachers; but others are careless in this respect, or deliberately attempt to control the nature or quality of the instruction given by individual teachers, particularly in what they regard as critical or dangerous subjects. In American institutions few presidents possess dangerous constitutional or charter powers in this respect, and none should exercise such powers. A president may of course remonstrate with a professor who seems to him to be exceeding the just limits of academic freedom, and he may properly give distinct advice when consulted beforehand by any member of his staff on a question relating to academic freedom; but he should never attempt to impose his judgment or his will on a teacher.

The real liberty of a teacher to teach as he wishes to may be closely limited by the customs or habitual usages of the institution with which he is connected, even more than by the direct action of the constituted authorities. Every earnest and progressive teacher desires to be freed, as much as possible, from routine details which admit of little variety, and have ceased to be instructive or otherwise beneficial to himself. If his habitual duties involve much work of this character, his own rate of progress in knowledge and efficiency will be checked, and his enthusiasm may be chilled as the

years go on. Routine is an enemy to progress, and to real mental liberty. Again, in every teacher's life there is apt to be a large element of year-by-year repetition. Year after year he reads the same authors with his classes, or he deals with the same subjects in his laboratory teaching, and even with the same materials for illustrating his subjects. He may be held to an unreasonable degree of repetition by the faculty, by his department, or by two or three colleagues who refuse to exchange with him. As years go on, it is easier for him to follow a routine, or to use again his manuscript notes grown yellow and brittle with age, than to change his habits, or to venture into comparatively new fields. Routine and repetition have done their work. They have limited his freedom, and therefore his growth. In all teaching, at whatever grades, there must be elements of routine and repetition, but excess of these indispensable elements is to be guarded against in every possible way, both by the teacher himself and by the authorities to whom he is responsible; for the teacher's efficiency depends primarily on the maintenance of his vitality and enthusiasm.

The prudent teacher in school, college, or university will keep a sharp lookout on two other risks to which American teachers are exposed; they will beware of doing too much teaching and of undertaking too much administrative work. The teacher for life absolutely needs to reserve time and strength for continuous acquisition and development on his own part. He must not be always giving out information and influence. He must have time to absorb, to feed his own growing powers, and to rekindle his own enthusiasms at the great lamps of literature and science. The university teacher ought to keep time and strength to contribute a little to the advancement of his own subject. This he can

not do if teaching or administration, or both, take up all his time or all his energy. He should therefore aim at regulating his academic life in such a way that these higher purposes may be fulfilled; and this good end in each individual case should be furthered by every academic authority and influence. These are some of the subtler elements in a well-composed academic freedom.

Professors and other teachers, who should be always teaching or making researches, need to be relatively free from pecuniary cares; so that their minds may run on their work. To this end they should have fixed salaries, and retiring allowances; so that they may adjust their scale of living to their earnings, and not have to think about making money, or to feel anxiety about disability or old age. This detachment from ordinary pecuniary or livelihood anxieties is an important element in their mental freedom, and for the right kind of person a strong inducement to the profession. The teacher ought always to be a person disposed to idealism and altruism; and he should have abandoned once for all the thought of measuring his success by the size of his income.

In the best managed universities, colleges, and school systems a teacher is always free to accept promotion in another institution or school system, although in most cases he may properly consider himself bound to finish, where he is, an academic year begun. It is inconvenient for the institution which the promoted teacher leaves to lose him; but in the long run institutions which are liberal and cordial in such dealings will have a better staff than they would have if they tried to hold their successful teachers to long contracts against the will and to the disadvantage of those teachers. This feature of academic freedom has far-reaching good effects on the

profession and the nation, as appears conspicuously in the educational history of Germany, and the present condition of the leading educational institutions in the United States.

Finally, academic freedom for teachers is properly subject to certain limitations which may best be described as those of courtesy and honor. They resemble the limitations which the manners of a gentleman or a lady impose on personal freedom in social intercourse. The teacher in a school, or the professor in a college or university, may properly abstain from saying or doing many things which he would be free to say or do if it were not for his official position. He may properly feel that his words and acts must inevitably have an effect on the reputation and influence of the institution with which he is connected. This sentiment undoubtedly qualifies or limits the freedom he would otherwise exercise and enjoy. Many a professor in this country has felt acutely that he was not entirely free to publish in journals or books just what he thought on controversial subjects, if he put in connection with his signature his official title as professor. Doubtless some difficult cases of this sort arise in which the reputation of an institution is unfavorably affected temporarily by the publications, or public speeches of one or more of its officers; but no satisfactory defense against this kind of injury has yet been invented, since the suppression of such publications does infinitely more harm to the general cause of education than it can do good to the institution concerned. Most learned societies declare in some conspicuous place within their customary publications that the society is in no way responsible for the opinions or conclusions of the individual contributors; but it is hardly practicable, even if it were desirable, for a university, college, theological seminary

or school of technology to put a like declaration on all the publications made by their officers. The only satisfactory defense of the institutions against the risks under consideration is to be found in the considerateness and courtesy of the teachers concerned, and in their sense of obligation to the institutions with which they are connected, and of the added weight which their official position gives to their personal opinions.

When I was first president of Harvard College I got a lesson on this subject from one of the most respected of the Harvard professors of that day. He had recently made to the American Academy of Arts and Sciences a communication which dealt in a novel way with one particular aspect of the financial credit of the United States; and this communication had been warmly attacked by several of his fellows in the Academy, including some influential Boston business men. He was in the act, however, of issuing a manual for schools and colleges, in which he had incorporated the questionable doctrine, and on the title page of this book he had put under his name his professorial title in Harvard University. As the time approached for publishing the volume—the plates of which he owned—his mind misgave him with regard to the propriety of proclaiming this unusual and controverted doctrine in his capacity as professor in Harvard University, and he therefore asked me, as President, what the president and fellows of Harvard College would think on that point. I was obliged to tell him that the president and fellows would prefer to have that doctrine omitted from the book, unless, indeed, he were willing to omit from the title page his own official title as a Harvard professor. The result was that the troublesome chapter was omitted; but the professor lost all interest in his entire manual, and insisted on selling the plates to his publisher, and foregoing

his royalty on the sales of the book. The incident taught me that the best defense of an institution against abuses of academic freedom was to be found in the sense of duty and honor which obtains among its officers.

FREEDOM FOR STUDENTS

The college student coming from a good secondary school has probably had some small amount of choice among the subjects provided at his school towards admission to college. He may arrive at his college with more Latin and Greek and less modern languages, or the reverse. He may offer himself in several sciences or in not more than one. His choice in this respect may have been closely limited, and yet not without serious effects on his subsequent career. When he reaches his college, normally at eighteen or nineteen years of age, he ought to find at once a great enlargement of his freedom of choice among studies. This is for the student the first element in a just academic freedom. By close attention to his own individual problem, and to his own antecedents, and with a little assistance from an expert in the list of courses and the schedule of hours, he will have no difficulty in finding the courses most suitable for himself. In the freest elective system there are plain fences marking out the feasible tracks. These fences are in most cases the natural and inevitable sequences of the courses offered in the several subjects of instruction. A few may be arbitrary and artificial, such restrictions being probably the results of inadequate resources in the college itself, or of some policy inconsistent with its general regime of liberty. The choice of studies made in any individual case may be very wisely modified, or fundamentally changed, by the student's choice of teachers. This choice among teachers is a very valuable element in academic freedom for the stu-

dent. The newcomer at a college may not possess the information needed to enable him to exercise this freedom; but during the first half-year or quarter of residence most students can acquire sufficient information about the different teachers of the subjects which interest them to enable them to exercise discreetly this freedom of choice among teachers. Having found his best teacher, the student ought to find himself free to follow him for several years. Unfortunately faculties are more likely to interfere with this particular liberty than with any other, as for instance by enacting that philosophy, or economics, or political science shall not be accessible to any student before the sophomore year.

Under a broad elective system in the arts and sciences the students will always make many choices of single courses which interest them, or look to them profitable; but there will also be a great variety of voluntary groupings of courses, and the liberty to make an appropriate grouping is a very important part of academic freedom for the student. Such groupings are often determined by the student's foreknowledge of his professional career, or if this knowledge is lacking, by his own selection of kindred subjects, all of which commend themselves to his taste or his judgment. This liberty to make groupings, each one for himself, is another important element in a just academic freedom. Almost all students who decide on their profession early in their college course make groupings which will further them in their professional career, and in their preparation therefor, and for the student there is no safer principle of selection among appropriate college subjects. A student who lacks this clear guidance may most safely depend for guidance in the choice of his studies on the tastes and capacities of which he is conscious. Among the multitude of culture courses which a large college offers, the safest selec-

tion for the individual student is that of courses in which he has the capacity to achieve something considerable. Interest in a subject is an indication of fitness for its study, or, in other words, a student is much more likely to succeed in a subject which interests him strongly than in a subject which does not. Achievement and gain in power are the true rewards of persistent exertion, and the best spurs to further effort. The college student ought to be free to specialize early in his course, or not to specialize at all; to make his education turn on languages, mathematics, history, science or philosophy—for example—or on any mixture of these great subjects.

The college student may reasonably expect to find himself free from attempts to impose opinions on him. These attempts may be made by his teachers, or by intimate comrades, or by groups of companions and friends, or by mass meetings. He has a right in these days to be free from the imposition of opinions, whether attempted by elders or associates, by one individual or a multitude. He has also a right to be free from all inducements to cant, hypocrisy, or conformity. On this account, voluntary attendance at all religious exercises is a valuable element in academic freedom. No student ought to be able to suppose that he will gain anything towards high rank as a scholar, or social standing, or popularity among his fellows by any religious observance or affiliation whatsoever. A mercenary or profit-seeking spirit in religious practices is very injurious to young people, and is peculiarly repulsive in them.

The student who needs pecuniary aid in college, or desires employment in which he can partly earn his livelihood, ought to find an absolutely free competition for such assistance on merit only, without regard to any opinions or practices of his. It is

highly desirable that college students should be free from care for their livelihood during the whole period of education, accepting support from their parents or other loving friends. To give this support is the precious privilege of parents, to accept it the precious privilege of children. Nevertheless, it is one of the best results of democracy that young men of capacity and character find it possible to obtain a prolonged education for the professions or for business, although they are obliged to support themselves wholly or in part during the long period of strenuous study. Endowments, the bounty of the state, or the facilities for obtaining appropriate employment which colleges now provide, procure this freedom for thousands of young Americans every year. The young men thus aided to attain a larger and freer career should invariably feel bound in after life to pass on and amplify the privilege they enjoyed.

Finally, the student ought to find himself free to determine the method of his daily life with no more restrictions than the habits and customs of civilized society necessarily impose. His problem will be to regulate his own life wisely by self-control in liberty. Up to his entrance to college his mode of life has probably been regulated for him by home rules, or school rules; and he has been almost constantly under the observation of parents or teachers, or both. Now, at college, he should be free. He will probably make some mistakes, at first, about eating and drinking, sleeping, taking exercise, arranging his hours for work and for play, and using his time; but his mistakes will not be fatal or beyond remedy, and he will form habits based on his own observation and experience and his own volitions. These are the habits that prove trustworthy in adult life. As in the outer world, so in the comparatively sheltered college world, freedom is

dangerous for the infirm of purpose and destructive for the vicious; but it is the only atmosphere in which the well-disposed and resolute can develop their strength. Under any college regime, whether liberal or authoritative, a very valuable though dangerous part of the student's freedom is his freedom to choose his comrades, or habitual associates. That choice will show in every individual case whether the young man possesses moral principle and firmness of character or not. If the choice is good, he will be safe in liberty; if the choice is bad, he will be unsafe under any regime. The student ought to choose his own comrades deliberately, and after some study of the accessible variety of associates. To be forced to accept an unknown group of permanent associates within three weeks of entering college is an unfortunate limitation of academic freedom.

I have thus far spoken as if academic freedom were one thing for teachers and another thing for students; and, indeed, the aspects and results of that freedom for the mature men whose life work is study and teaching, and for the youth who are only beginners in the intellectual life, are somewhat different. Nevertheless, in a college or university there is a perfect solidarity of interests between teachers and taught in respect to freedom. A teacher who is not supposed to be free never commands the respect or personal loyalty of competent students, and students who are driven to a teacher are never welcome, and can neither impart nor imbibe enthusiasm.

The real success of a college or university teacher in the long run depends on his training up a few sincere and devoted disciples. To this process, freedom on both sides is essential. The student must be free to choose the same teacher for several years, and the teacher to hold the same student. There must be a voluntary co-operation of tastes, capacities, and wills for

years. As a rule, enduring influence is won only by a teacher who thus brings up a few congenial, cooperative disciples capable of carrying on and developing their master's work. The duration of the master's influence depends on the capacity of his disciples to go beyond him, and develop his ideas under new conditions; and for this development they in their turn will need a genuine freedom for themselves, and for their students. Such is the rapid progress of science, letters and art in these days that the old ideas can only live as they are transmuted into the new; but for the just development of the new out of the old freedom is indispensable. All truth-seeking needs freedom, and in a university teachers and taught ought to be constantly seeking truth together. Even partial truth makes free, and every sincere searcher for the next glimpse of truth beyond the present limits of knowledge needs not only a perfect candor in his own soul, but freedom from all artificial external restraints on the flights of his intelligence and goodwill.

UNIVERSITY GOVERNMENT IS A TYPE

The government of a good college or university in the United States, which is free from denominational or political control, foretells the type of the best ultimate forms of human government. It is a government in which there is no use of force. There is some police inspection, and a constant watchfulness against disease, fire, noise, and similar evils, but no prison, no physical punishment, the least possible interference with the personal conduct of the governed, and a generous amount of goodwill between all members of the community. The citizens, or constituency, of this government are selected persons as regards intelligence, goodwill, and cooperative purpose. Exile from the community is the sole penalty for misconduct, ineffi-

ency, or unworthiness. The government is not arbitrary, and yet it possesses large elements of discretion. It habitually acts under rules and usages, yet it is progressive; it does not permit a perverse individual to injure the main body, but its dealings with the individual are always in the direction of reformation, education, and recovery from downfall, and exile is never resorted to until many efforts at recovery and reformation have failed. Vengeance on the sinner, and the satisfaction of justice by punishment, are absolutely excluded from its discipline, as in the first place unworthy of any intelligent ruler or governor, and also as completely ineffective towards either individual or community improvement. There are no elective bodies analogous to Senate and House of Representatives, and yet there are legislative bodies and an executive. Long tenure, and life office play a great part in university organization, and as a rule there is no jealousy or distrust of long service executives, provided they are considerate and fair. On the contrary, in universities the governed generally exhibit a decided preference for an experienced executive of proved capacity, and a dislike for changes in executive departments.

The principle of authority is very little applied in good university government. Respect is paid to age, if it remains vital, and to experience, especially to intensive experience; but mere seniority counts for very little, and an administrator's influence is supported chiefly on his persuasiveness, or power of discerning a good reason for a proposed action, and then stating it convincingly.

In the government of the American universities, sentiments have a large place, as indeed they should have in all government. Among these sentiments are a strong love for the site and surroundings of the university—an affectionate memory of the

fields and hills, the streams or lakes within sight of which years of rapid intellectual and spiritual growth were passed; downright affection for teachers who greatly stimulated the intellectual life of their students; and among the members of the university staff itself, admiration and affection for certain colleagues whose traits of character, wit, or charming personal idiosyncrasies especially commend them to their brethren. Occasionally a college administrator who is also a preacher from pulpit or platform wins for the time being an extraordinary influence over large numbers of young men by the purity and force of his character, and the high spirit of his instruction and exhortation. These sentiments, like all the higher loves, grow up in a freedom which knows no admixture of fear, compulsion, or domination. They are all noble, refined, and inspiring sentiments. To develop them in the highest degree is one of the chief objects of academic freedom.

A university should be entirely free from the highly restrictive bonds described in the words, caste, class, race, sect, and party. In its best form it already is so. These formidable restrictions on individual liberty should play no part in its organization or its discipline. The world has had quite enough of these ancient means of dividing mankind into antagonistic sections. Every university should exert a strong unifying influence in these respects.

I have said that the university form of government is a prophecy. It really foretells the ultimate form of all good government among men—a government based on cooperative intelligence, almost universal goodwill, and noble loves. Its leaders are of a new sort which deserves study.

A modern university, being a voluntary cooperative association of highly individualistic persons for teaching and for advancing knowledge, is thoroughly demo-

cratic in spirit, and everywhere its objects are to train productive mental power in the young, to store each power in a select group from the next older generation, and to apply this stored power to the advancement of knowledge. This peculiar kind of democratic association needs leaders or managers; but the work of a university is so different from ordinary governmental and industrial work, that we are not surprised to find that the university leader or manager is a different kind of a leader from that common in governments and industries. It is an interesting question, therefore, what sort of leadership a university needs; what contribution to academic freedom the right sort of university leader makes; and what sort of freedom he needs for himself.

University administration is usually, and in chief part, administration by a selected expert who has had opportunity to prove his capacity. He ought also to be an advanced student in some field of knowledge—historical, economic, linguistic, scientific or artistic, it matters not which—and a student who has learned by experience what research or scholarly productiveness is and implies. Like the captain of industry, or the political ruler, he must have skill, capacity, and knowledge; must be inventive and constructive in his thinking; and must welcome care and responsibility. His inducements to laborious and responsible service are, however, different from those which are effective with other sorts of leader. A high salary, or the prospect of luxury for himself and his family, will not tempt him. These inducements will not draw the right kind of man into university administration any more than into teaching or research. He cannot be induced to do his best work by offering him any money prize, and he will manifest no desire whatever for arbitrary power over masses of human beings, or for what is ordinarily

called fame or glory. The effective inducements will be the prospect of eminent usefulness, public consideration, the provision of all real facilities for his work, enough relief from pecuniary cares to leave his mind free for invention and forelooking, long tenure, and income enough to secure healthy recreations. He will not wish to receive a salary so high as to distinguish him widely from his colleagues the professors, except so far as the proper discharge of his functions involves him in expenditures from which they are exempt. He will want to work with a group of associates whose pecuniary recompense and prospects are not very unlike his own.

This educational expert will set a high value on freedom for himself. He will hope that trustees, faculties, alumni, and the supporting public, will permit him to carry out his own plans and provisions, or those which he espouses. He will hope that the responsibility he carries will entitle him to a certain deference for his judgments from his colleagues and the academic bodies. In short, a just academic freedom for the head of a university is more important than for any other person or group of persons connected with the university, for the reason that in education, as in every other function of democratic government, and every branch of the national industries, the problem how to create and develop real leadership is the most serious problem which confronts democratic society.

In all fields, democracy needs to develop leaders of high inventive capacity, strong initiative, and genius for cooperative government, who will put forth their utmost powers, not for pecuniary reward, or for the love of domination, but for the joy of achievement and the continuous, mounting satisfaction of rendering good service. This is just the kind of leader that democracy ought to produce for highly organ-

ized industries and for public service. The military commander is necessarily an autocrat; the hereditary ruler may be either a despot or a figurehead. The present type of industrial captain is too often governed by motives, and pursues ends, which are neither altruistic nor idealistic. None of these types is good for the democratic leader of the future, whether he is to serve in some great industry, in government, or in a university. At this moment the university administrator makes the best use now made of the powers of individualism on one hand, and of collectivism on the other, and understands better than any other leader in the world that in order to have successful cooperative action on the part of thousands of human beings, special emphasis must be laid on brotherhood in that admirable trinity—freedom, equality and brotherhood.

The American university gives an effective demonstration of the good results of the voluntary association in common work of many independent and unlike individuals possessing the maximum of goodwill; and academic freedom is, therefore, a good type of the considerate, humane freedom which will ultimately become universal.

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SCIENTIFIC BOOKS

RECENT LITERATURE ON ECHINODERMS

THERE has been a marked increase in the attention given to the echinoderms, since the opening of the twentieth century, and during the last year especially, the contributions to our knowledge of the group have been numerous. Among these there are three which, for widely different reasons, particularly deserve attention.

Fisher's "Starfishes of the Hawaiian Islands"¹ is the first extended contribution

¹ "The Starfishes of the Hawaiian Islands," by Walter K. Fisher, acting instructor in zoology, Leland Stanford Junior University. Extracted